



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,160	04/16/2007	Young Su Lee	1594.1587	1834
7590 09/07/2010				
Staas & Halsey 7th Floor 1201 New York Avenue N W Washington, NY 20005			EXAMINER PERRIN, JOSEPH L	
			ART UNIT 1711	PAPER NUMBER
			MAIL DATE 09/07/2010	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/582,160

Applicant(s)

LEE, YOUNG SU

Examiner

Joseph L. Perrin

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/CD)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 16 August 2010 has been entered.

Response to Arguments

2. Applicant's arguments filed 16 August 2010 have been fully considered but they are not persuasive.

3. Regarding the rejection of claims 1-4 and 6-11 under 35 USC 103 as being unpatentable over Kim, Applicant argues (regarding claim 1) that "Kim discloses a detergent feeder and a colloidal silver maker connected in parallel" whereas "claim 1 recites a structure of connecting a colloidal silver maker and a detergent feeder in series to thereby mix the colloidal silver-containing wash water with a detergent and then supply it to a washing tub". This is unconvincing as the position is maintained that there appears to be nothing unexpected or unpredictable from the simple rearrangement of parts of the parallel system of Kim to arrive at Applicant's in series system as it would

appear the rearrangement would produce the same expected and predictable result of supplying either or both of colloidal silver and detergent to a washing machine.

4. Applicant further argues (on page 7 of the instant response) that difference in this rearrangement serves to "structurally patentably distinguish over Kim" but does not explain precisely how such structure serves to patentably distinguish. It appears Applicant has simply argued that the claims distinguish rather than how they *patentably* distinguish, which may be persuasive for an anticipation rejection but arguments for novelty are unconvincing for patentability over an obviousness rejection as in the instant case. Moreover, the rearrangement would appear to produce the same and expected result of supplying colloidal silver and/or detergent to a washing machine. Thus, a *prima facie* case of obviousness exists in the rearrangement as there are a finite number of possible combinations which would be contemplated by one having ordinary skill in the art (i.e. in parallel or in series), and therefore the claim would have been obvious because a person of ordinary skill has good reason to pursue the known options with his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense.

5. Further on page 7 of the response, Applicant argues that the colloidal silver maker and detergent feeder are "integrally connected...so that it is unnecessary to further connect the outlet pipe to the detergent feeder, thus preventing the wash water from leaking through the outlet pipe due to a water pressure of the wash water or repeated use of the washing machine." However, this is an expected result because one skilled in the art recognizes that using conventional fastening means for making

"integral" would result in a water tight connection. As previously indicated in the prior Office action, making components "integral" does not generally serve to impart patentability in apparatus claims. Regarding making "integral", see *In re Hotte*, 177 USPQ 326, 328 (CCPA 1973); *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893); *In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965).

6. Moreover, regarding the advantages discussed by Applicant, these reasons are neither unexpected or unpredictable as one having ordinary skill in the art knows that increasing/decreasing manufacturing components is directly related to increased/decreased cost, respectively, and that the more/less junctions in a water supplying system results in more/less possible leaks, respectively. Simply stated, there is nothing unexpected or unpredictable in such "advantages" that result in sufficient secondary conditions that impart patentability.

7. Accordingly, claim 1 remains rejected for reasons of record (along with claims 2-6 dependent thereon).

8. Regarding claim 3, Applicant further argues (on page 7) that "the storage tank 31 does not define a passage" and "the storage tank 31 of Kim is what the name implies, a tank." This is unconvincing because the "storage tank" of Kim is used to generate silver ions and pass water from a water source through the tank and to the laundry to be treated. Manifestly, the tank of Kim reads on a "passage" because this is precisely what the structure disclosed in Kim does during operation.

9. Further regarding claim 3, Applicant argues that the silver rods of Kim are not "structural equivalents" to the claimed silver plates because "a plate and a rod have

different structures". Manifestly, structural equivalents necessarily must have different structures, otherwise they would not be structural equivalents but rather the same structure. The silver rods of Kim and the silver plates of claim 3 are considered structural equivalents because they appear to perform the same function of producing silver. The only apparent difference is the shape of the silver generating structure (i.e. a plate vs. a rod). However, the simple change in shape does not appear to provide anything unexpected or unpredictable, and as such does not serve to patentably distinguish. A change in form or shape is generally recognized as being within the level of ordinary skill in the art. *In re Dailey*, 149 USPQ 47 (CCPA 1976).

10. Regarding claim 7, Applicant generally points to the quoted claim limitation and provides a general allegation that the claim serves to "structurally patentably distinguish over Kim". Again, it appears Applicant has provided arguments for novelty rather than for obviousness which are unconvincing for reasons of same indicated above. Absent a clear showing of precisely how and why the claimed configuration produces something unexpected or unpredictable, the rearrangement of the parallel configuration disclosed in Kim into a series configuration would appear to produce the same predictable result, appears to be obvious to try in light of the finite number of configurations (i.e. parallel or series), and appears to be *prima facie* obvious. Further, absent convincing arguments of the location of the inlets and outlets (i.e. on a "lower end" or "upper end" of the corresponding structures), such rearrangement location would be well within the knowledge and skill of one having ordinary skill in the art. Simply stated, there appears nothing unexpected or unpredictable in arranging the inlets/outlets on one portion

versus the other, and absent a clear and concise showing to the contrary such configuration does not serve to patentably distinguish.

11. Regarding new claims 12-13, Applicant argues that these claims are patentable because claim 1 is patentable. This is unconvincing because claim 1 remains rejected for reasons already of record and those indicated above.

12. The Examiner notes that the claims are under an obviousness rejection over Kim, whereas Applicant simply provides arguments for novelty with general allegations of patentability in that the claims "structurally patentably distinguish over Kim" without explaining how and why the claims define a *patentable* modification. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Claim Rejections - 35 USC § 103

13. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

14. Claims 1-4 and 6-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over KR '368.

Regarding claims 1, 2, 3, and 7, KR '368 discloses a washing machine with a rotary tub mounted in a tub (11/12) combined with a colloid silver maker (30) in the water supply line, the water supply line leading to an external source (a water supply unit is inherent/implicit as all water supplies include a storage source, i.e. unit), the silver

maker comprising a silver ion casing/housing (31) and lid (32), the housing having an inlet (36) and outlet (39), a water feed connecting valve (22) for connecting the inlet of the housing and the water supply unit of the washing machine, two silver members (33/34; note that silver rods and plates are structural equivalents, such being common knowledge in the art) installed in the housing with a nozzle spray unit structure (36a/b) separating the silver members, and connecting pipe thereby configuring the silver maker with a detergent feeder (23) comprising a slidable detergent container (24), the structures configured to supply silver-containing wash water to the tub. See Figs. 1-3 and relative associated text.

KR '368 discloses the claimed invention and KR '368 teaches that it is known to provide a washing machine with both a silver solution supply device (30) and detergent supply device (23) as shown in Figs. 1-3 and relative associated text. However, while KR '368 discloses both a silver supply device and detergent supply device in parallel, KR '368 does not disclose the supply devices in series as claimed. However, it would have been obvious to rearrange the supply devices from parallel to series since such rearrangement would produce the same predictable result of supplying silver and/or detergent to the washing machine. It has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70. Moreover, a *prima facie* case of obviousness exists in the rearrangement as there are a finite number of possible combinations which would be contemplated by one having ordinary skill in the art (i.e. in parallel or in series), and therefore the claim would have been obvious because a person of ordinary skill has good reason to pursue the known

options with his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense.

Regarding claims 4, 6, 10 and 11, KR '368 discloses a lid and an inlet but does not expressly disclose the inlet provided on the lid. However, it would have been obvious to rearrange the inlet to the lid since such rearrangement would produce the same predictable result of supplying water to the silver maker as it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Regarding claims 8-9, as indicated above KR '368 discloses the claimed detergent feeder including a slidable detergent container as well as the silver maker having an outlet spray unit with plural holes, the detergent feeder and silver maker being arranged in parallel. As indicated above, the position is taken that rearranging the detergent feeder and silver maker described in parallel to a configuration being in series would result in the configuration of claim 8 and is considered *prima facie* obvious since such rearrangement would produce the same predictable result of delivering detergent and/or silver to a washing machine.

Regarding new claim 12, the proposed rearrangement would result in the detergent feeder receiving water only through the colloidal silver maker. Moreover, such configuration appears to produce the same expected and predictable results of selectively supplying silver and/or detergent to the washing machine.

Regarding new claim 13, Kim further shows (see the Figures) the colloidal silver maker and detergent feeder at an upper portion of the washing machine.

11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over KR '368 in view of MAMIYA. KR '368, *supra*, discloses the claimed invention with the exception of providing at least one spacing projection provided between the silver members. MAMIYA teaches that it is known to provide a silver maker having silver members with spacing projections projected thereinbetween (see top and bottom of silver maker 60 in Figs. 1-3).

All of the component parts are known in KR '368 and MAMIYA. The only difference is the combination of "old elements" into a single washing machine by providing the silver maker of KR '368 with spacing projections as taught in MAMIYA.

Thus, it would have been obvious to one having ordinary skill in the art to mount the spacing projections taught by MAMIYA onto the silver maker housing as shown in KR '368 to achieve the predictable results of maintaining spacing between the silver members. Moreover, there would be a reasonable expectation of success in combining KR '368 and MAMIYA, since each of the references are analogous to the washing machine art. The Examiner notes that a rearrangement of the spacing projections and silver members (i.e. either on top or bottom of the silver maker) is considered *prima facie* obvious as such rearrangement would produce the same predictable result absent evidence to the contrary.

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Perrin whose telephone number is (571)272-1305. The examiner can normally be reached on M-F 8:00-4:30.
16. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael E. Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
17. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joseph L. Perrin/
Joseph L. Perrin, Ph.D.
Primary Examiner
Art Unit 1711

JLP